

Case Reference

SIGNAL TO NOISE RATIO MEASUREMENT IN A COMMUNICATIONS SYSTEM

ABSTRACT

5 The transmission properties of the signal carrier wavelengths in a wavelength
division multiplexed optical transmission system are equalised with reference to their
signal to noise ratios at a receiver. Each wavelength transmitter transmits a bit
sequence as a modulation on the respective wavelength. At the receiver, each
wavelength modulated with the bit sequence is converted into a corresponding
electrical signal. From a spectrum of that electrical signal, an electrical signal to
noise ratio is determined. The measurements for the wavelengths are used to
control adjustment of the individual wavelength transmitters such that the signal to
noise ratios of the wavelengths are substantially equal.

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